As a result, it was found that this mRNA had been expressed in most parts of the central nervous system, indicating its important role in nerve tissues.

5 Industrial Applicability

The protein, its partial peptide or a salt thereof of the present invention has physiological activities such as a nerve-extending or nerve-regenerating activity, a gliacyte stimulating activity, and so on. The protein, etc. or the DNA coding for the protein, etc. of the present invention is useful as a therapeutic or prophylactic agent for Alzheimer's disease, Parkinson's disease, Huntington's disease, amyotrophic lateral sclerosis (ALS), dementia or cerebellar degeneration. The antibody against the protein, etc. can be used in the assay of the protein, etc. in a test sample. Furthermore, the protein, etc. is useful as a screening reagent for compounds or their salts capable of promoting the function of the protein.

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SEQUENCE LISTING

INFORMATION FOR SEQ ID NO:1

- (i) SEQUENCE CHARACTERISTICS
- 25 (A) LENGTH: 187
 - (B) TYPE: Amino acid
 - (C) TOPOLOGY: Linear
 - (ii) MOLECULE TYPE: Protein
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1

30

 Ala Pro Arg
 Pro Cys Gln Ala Pro Gln Gln Trp Glu Gly Arg Gln Val

 1
 5

 Met Tyr Gln Gln Ser Ser Gly Arg Asn Ser Arg Ala Leu Leu Ser Tyr

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 25

35 Asp Gly Leu Asn Gln Arg Val Arg Val Leu Asp Glu Arg Lys Ala Leu 35 40 45

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		50					55					60				
	Val	Met	Phe	Gln	Ile	Asp	Gln	Ala	Thr	Lys	Gln	Cys	Ser	Lys	Met	Thr
	65					70					75					80
5	Leu	Thr	Gln	Pro	Trp	Asp	Pro	Leu	Asp	Ile	Pro	Gln	Asn	Ser	Thr	Phe
					8.5					90					95	
	Glu	Asp	Gln	Tyr	Ser	Ile	Gly	Gly	Pro	Gln	Glu	Gln	Ile	Thr	Val	Gln
				100					105					110		
	Glu	Trp	Ser	Asp	Arg	Lys	Ser	Ala	Arg	Ser	Tyr	Glu	Thr	Trp	Ile	Gly
10			115					120					125			
	Ile	Tyr	Thr	Val	Lys	Asp	Cys	Tyr	Pro	Val	Gln	Glu	Thr	Phe	Thr	Ile
		130	. ,				135					140				
	Asn	Tyr	Ser	Val	Ile	Leu	Ser	Thr	Arg	Phe	Phe	Asp	Ile	Gln	Leu	Gly
	145					150					155					160
15	Ile	Lys	Asp	Pro		Val	Phe	Thr	Pro		Ser	Thr	Cys	Gln	Met	Ala
		_			165	_				170					175	
	Gln	Leu	Glu	_	Met	Ser	Glu	Asp		Ser	Trp					
				180					185							
20	TNE	ORMA:	r T O N	FOR	SEO	י חד	JO - 2									
20	(i)				-	TER		35								
		A) LE	-			-1-11								•		
		3) TY				cid										
) TO														
25) MOI					ein									
		SEC						SEQ :	וא סו	0:2						
	Ser	Pro	Gly	Thr	Pro	Gln	Pro	Cys	Gln	Ala	Pro	Gln	Gln	Trp	Glu	Gly
	1				5					10					15	
30	Arg	Gln	Val	Leu	Tyr	Gln	Gln	Ser	Ser	Gly	His	Asn	Ser	Arg	Ala	Leu
				20			٠		25					30		
	Val	Seŗ	Tyr	Asp	Gly	Leu	Asn	Gln	Arg	Val	Arg	Val	Leu	Asp	Glu	Arg
			35					40					45			
	Lys	Ala	Leu	Ile	Pro	Cys	Lys	Arg	Leu	Phe	Glu	Tyr	Ile	Leu	Leu	Tyr
35		50					55					60				
	1	400	C 1	W - 1	Mat	Dha	CID	TIO	C1	Cln	Δla	Th -	Tare	Lou	Cvc	41-

	ره					70					/ 5					80
	Lys	Ile	Pro	Leu	Ala	Glu	Pro	Trp	Asp	Pro	Leu	Asp	Ile	Pro	Gln	Asn
					85					90					95	
	Ser	Thr	Phe	Glu	Asp	Gln	Tyr	Ser	Ile	Gly	Gly	Pro	Gln	Glu	Gln	Ile
5				100					105					110	-	
	Met	Val	Gln	Glu	Trp	Ser	Asp	Arg	Arg	Thr	Ala	Arg	Ser	Tyr	Glu	Thr
			115					120					125			
	Trp	Ile	Gly	Val	Tyr	Thr	Ala	Lys	Asp	Cys	Tyr	Pro	Val	Gln	Glu	Thr
		130					135					140				
10	Phe	Ile	Arg	Asn	Tyr	·Thr	Val	Val	Leu	Ser	Thr	Arg	Phe	Phe	Asp	Val
	145					150					155					160
	Gln	Leu	Gly	Ile	Lys	Asp	Pro	Ser	Val	Phe	Thr	Pro	Pro	Ser	Thr	Cys
					165					170					175	
	Gln	Thr	Ala	Gln	Pro	Glu	Lys	Met	Lys	Glu	Asn	Cys	Ser	Leu		, .
15				180					185					190		
										•		٠				
)	INFO	ORMA!	TION	FOR	SEQ	ID I	NO:3									
	(i)	SE	QUENC	CE CE	HARA	ÇŢER:	ISTI	cs								
	(<i>A</i>	A) LI	ENGT	1:18	7											
20	(I	3) T	YPE:	Amir	no ac	cid										
	(() Ť(OPOLO	OGY:	Line	ear										
	(ii)) MOI	LECUI	LE TY	YPE:	Prot	tein									
	(xi)) SE	QUENC	CE DE	ESCR	IPTIC	ON: S	EQ I	ED NO	0:3						
25	Thr	Pro	Gln	Pro	Cys	Gln	Ala	Pro	Gln	Gln	Trp	Glu	Gly	Arg	Gln	Val
	1				5					10	,				15	
	Leu	Tyr	Gln	Gln	Ser	Ser	Gly	His	Asn	Asn	Arg	Ala	Leu	Val	Ser	Tyr
				20					25					30		
	Asp	Gly	Leu	Asn	Gln	Arg	Val	Arg	Val	Leu	Asp	Glu	Arg	Lys	Ala	Leu
30			35					40					45			
	Ile	Pro	Cys	Lys	Arg	Leu	Phe	Glu	Tyr	Ile	Leu	Leu	Tyr	Lys	Glu	Gly
		50					55					60				
	Val	Met	Phe	Gln	Ile	Glu	Gln	Ala	Thr	Lys	Gln	Cys	Ala	Lys	Ile	Pro
	65					70					75					80
35	Leu	Val	Glu	Ser	Trp	Asp	Pro	Leu	Asp	Ile	Pro	Gln	Asn	Ser	Thr	Phe
					85					90					9.5	

Glu Asp Gln Tyr Ser Ile Gly Gly Pro Gln Glu Gln Ile Leu Val Gln 105 Glu Trp Ser Asp Arg Arg Thr Ala Arg Ser Tyr Glu Thr Trp Ile Gly 120 5 Val Tyr Thr Ala Lys Asp Cys Tyr Pro Val Gln Glu Thr Phe Ile Arg 130 135 Asn Tyr Thr Val Val Met Ser Thr Arg Phe Phe Asp Val Gln Leu Gly 150 155 . Ile Lys Asp Pro Ser Val Phe Thr Pro Pro Ser Thr Cys Gln Ala Ala 10 165 170 Gln Pro Glu Lys Met Ser Asp Gly Cys Ser Leu 180 INFORMATION FOR SEQ ID NO:4 15 (i) SEQUENCE CHARACTERISTICS (A) LENGTH:13 (B) TYPE: Amino acid (C) TOPOLOGY: Linear (ii) MOLECULE TYPE: Peptide 20 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4 Pro Cys Gln Ala Pro Gln Gln Trp Glu Gly Arg Gln Val 5 10 25 INFORMATION FOR SEQ ID NO:5 (i) SEQUENCE CHARACTERISTICS (A) LENGTH: 32 (B) TYPE: Amino acid (C) TOPOLOGY: Linear 30 (ii) MOLECULE TYPE: Peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:5 Gln Ile Asp Gln Ala Thr Lys Gln Cys Ser Lys Met Thr Leu Thr Gln 10 Pro Trp Asp Pro Leu Asp Ile Pro Gln Asn Ser Thr Phe Glu Asp Gln 20

INFORMATION FOR SEQ ID NO:6

	(i) SEQUENCE CHARACTERISTICS
	(A) LENGTH:25
	(B) TYPE: Amino acid
5	(C) TOPOLOGY: Linear
	(ii) MOLECULE TYPE: Peptide
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:6
	Ser Tyr Glu Thr Trp Ile Gly Ile Tyr Thr Val Lys Asp Cys Tyr Pro
10	1 5 10 15
	Val Gln Glu Thr Phe Thr Ile Asn Tyr
	20
	INFORMATION FOR SEQ ID NO:7
15	(i) SEQUENCE CHARACTERISTICS
	(A) LENGTH:17
	(B) TYPE: Amino acid
	(C) TOPOLOGY: Linear
	(ii) MOLECULE TYPE: Peptide
20	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:7
	Gln Leu Gly Ile Lys Asp Pro Ser Val Phe Thr Pro Pro Ser Thr Cys
	1 5 10 15
	Gln
25	
	INFORMATION FOR SEQ ID NO:8
	(i) SEQUENCE CHARACTERISTICS
	(A) LENGTH: 39
	(B) TYPE: Amino acid
30	(C) TOPOLOGY: Linear
	(ii) MOLECULE TYPE: Peptide
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:8
2.5	Ser Tyr Asp Gly Leu Asn Gln Arg Val Arg Val Leu Asp Glu Arg Lys
35	1 5 10 15
	Ala Leu Ile Pro Cys Lys Arg Leu Phe Glu Tyr Ile Leu Leu Tyr Lys

Asp Gly Val Met Phe Gln Ile

5	INFORMATION FOR SEQ ID NO:9	
	(i) SEQUENCE CHARACTERISTICS	
	(A) LENGTH: 26	
	(B) TYPE: Amino acid	
	(C) TOPOLOGY: Linear	
10	(ii) MOLECULE TYPE: Peptide	
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:9	
	Pro Trp Asp Pro Leu Asp Ile Pro Gln Asn Ser Thr Phe Glu Asp G	n
	1 5 10 15	
15	Tyr Ser Ile Gly Gly Pro Gln Glu Gln Ile	
	20 25	
	INFORMATION FOR SEQ ID NO:10	
	(i) SEQUENCE CHARACTERISTICS	
20	(A) LENGTH:200	
	(B) TYPE: Amino acid	
	(C) TOPOLOGY: Linear	
	(ii) MOLECULE TYPE: Protein	
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:10	
25		•
	Trp Thr Leu Cys Gly Leu Cys Ser Leu Gly Ala Val Gly Ala Pro Ar	g
	1 5 10 15	
	Pro Cys Gln Ala Pro Gln Gln Trp Glu Gly Arg Gln Val Met Tyr Gl	n,
20	20 25 30	
30	Gln Ser Ser Gly Arg Asn Ser Arg Ala Leu Leu Ser Tyr Asp Gly Le	·u
	35 40 45	
	Asn Gln Arg Val Arg Val Leu Asp Glu Arg Lys Ala Leu Ile Pro Cy	S
	50 55 60	
2 5	Lys Arg Leu Phe Glu Tyr Ile Leu Leu Tyr Lys Asp Gly Val Met Ph	
35		0
	Gln Ile Asp Gln Ala Thr Lys Gln Cys Ser Lys Met Thr Leu Thr Gl	.n

					85					90					95	
	Pro	Trp	Asp	Pro	Leu	Asp	Ile	Pro	Gln	Asn	Ser	Thr	Phe	Glu	Asp	Gln
				100					105					110		
	Tyr	Ser	I1,e	Gly	Gly	Pro	Gln	Glu	Gln	Ile	Thr	Val	Gln	Glu	Trp	Seŗ
5			115					120					125			
	Asp .	Arg	Lys	Ser	Ala	Arg	Ser	Tyr	Glu	Thr	Trp	Ile	Gly	Ile	Tyr	Thr
		130					135					140				
	Val	Lys	Asp	Cys	Tyr	Pro	Val	G1n	Glu	Thr	Phe	Thr	Ile	Asn	Tyr	Ser
	145	•				150					155					160
10	Val	Ile	Leu	Ser	Thr	Arg	Phe	Phe	Asp	Ile	Gln	Leu	Gly	Ile	Lys	Asp
					165				,	170					175	
	Pro	Ser	Val	Phe	Thr	Pro	Pro	Ser	Thr	Cys	Gln	Met	Ala	Gln	Leu	Glu
				180					185			,		190		
	Lys 1	Met	Ser	Glu	Asp	Cys	Ser	Trp								
15			195					200								
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	(ii)															*
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25	Met :	Pro	Gly	Arg		Pro	Leu	Arg	Thr		Pro	Gly	Ala	Leu		Ala
	1			-	5		_			10		C		•	15	.
	Trp :	Leu	Leu	•	GIY	ren	1rp	Ala	-	Inr	reu	Cys	GIY		Cys	ser
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	Glu (Arg	GIN	val	met		GIN	GIN	ser	sei		Arg	ASII	261	ALE
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	Alal	Leu	ren	ser	ıyr	-	ста	rea	ASII	GIII	Arg 75	vdl	viå	v d T	rea	80
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ر ر	Glu A	urR	гλг	WIE	85	TIE	FEO	cys	руз	90	חבת	rite	GIU	ıyı	95	T C II

	عاد م	1 9 1	Lys	пэр	Gry	• 4 1	1166	1110	GIII	116	пэр	0111	nia	1111	Lys	GIII
				100					105					110		
	Cys	Ser	Lys	Met	Thr	Leu	Thr	Gln	Pro	Trp	Asp	Pro	Leu	Asp	Ile	Pro
			115					120					125			
5	Gln	Asn	Ser	Thr	Phe	Glu	Asp	Gln	Tyr	Ser	Ile	Gly	Gly	Pro	Gln	Glu
		130					135					140				
	Gln	Ile	·Thr	Va1	Gln	Glu	Trp	Ser	Asp	Arg	Lys	Ser	Ala	Arg	Ser	Tyr
	145					150					155					160
	Glu	Thr	Trp	Ile	Gly	Ile	Tyr	Thr	Val	Lys	Asp	Cys	Tyr	Pro	Val	Gln
10					165					170					175	
	Glu	Thr	Phe	Thr	Ile	Asn	Tyr	Ser	Val	Ile	Leu	Ser	Thr	Arg	Phe	Phe
				180					185					190		
	Asp	Ile	Gln	Leu	Gly	Ile	Lys	Asp	Pro	Ser	Val	Phe	Thr	Pro	Pro	Ser
			195					200					205			
15	Thr	Cys	Gln	Met	Ala	Gln	Leu	Glu	Lys	Met	Ser	Glu	Asp	Cys	Ser	Trp
:		210					215					220				
,																
	INF	ORMA'	ION	FOR	SEQ	ID !	10:12	2								
	(i)	SE	QUEN	CE CI	HARAG	CTER.	ISTI	cs								
20	(/	A) L	ENGTI	H:22	4											
	(1	B) T	YPE:	Amiı	no a	cid										
	((C) T	OPOL	OGY:	Line	ear										
	(ii)) MO	LECUI	LE T	YPE:	Prof	ein			J						
	(xi)) SE	QUEN	CE DI	ESCR	LPTI	on: S	SEQ :	ID NO	12						
25												.*				
	Met	Leu	Thr	Arg	Ala	Pro	Arg	Arg	Leu	Val	Gln	Gly	Pro	Arg	Glu	Thr
	1				5					10					15	
	Trp	Leu	Leu	Gly	Gly	Leu	Trp	Val	Trp	Ile	Leu	Cys	Gly	Leu	Gly	Met
				20					25					30		
30	Ala	Gly	Ser	Pro	Gly	Thr	Pro	Gln	Pro	Cys	Gln	Ala	Pro	Gln	Gln	Trp
			35					40					45			
	Glu	Gly	Arg	Gln	Val	Leu	Tyr	Gln	Gln	Ser	Ser	Gly	His	Asn	Ser	Arg
		50					5.5					60				
	Ala	Leu	Val	Ser	Tyr	Asp	G1 y	Leu	Asn	Gln	Arg	Val	Arg	Val	Leu	Asp
35	65				-	70	•				75					80
		Arg	Lys	Ala	Leu		Pro	Cys	Lys	Arg		Phe	Glu	Tyr	Ile	
			-					-	-	_				-		

	Leu	Tyr	Lys	Asp	Gly	Val	Met	Phe	Gln	Ile	Glu	Gln	Ala	Thr	Lys	Leu
				100					105					110		
	Cys	Ala	Lys	Ile	Pro	Leu	Ala	Glu	Pro	Trp	Asp	Pro	Leu	Asp	Ile	Pro
5	•		115					120					125			
	Gln	Asn	Ser	Thr	Phe	Glu	Asp	Gln	Tyr	Ser	Ile	Gly	Gly	Pro	Gln	Glu
		130					135					140				
	Gln	Ile	Met	Val	Gln	Glu	Trp	Ser	Asp	Arg	Arg	Thr	Ala	Arg	Ser	Tyr
	145		•			150					155					160
10	Glu	Thr	Trp	Ile	Gly	·Val	Tyr	Thr	Ala	Lys	Asp	Cys	Tyr	Pro	Val	Gln
					165					170					175	
	Glu	Thr	Phe	Ile	Arg	Asn	Tyr	Thr	Val	Va1	Leu	Ser	Thr	Arg	Phe	Phe
•				180					185					190		
	Asp	Val	Gln	Leu	Gly	Ile	Lys	Asp	Pro	Ser	Val	Phe	Thr	Pro	Pro	Ser
15			195					200					205		•	
	Thr	Cys	Gln	Thr	Ala	Gln	Pro	Glu	Lys	Met	Lys	Glu	Asn	Cys	Ser	Leu
		210					215					220				
				FOR											-	
20	(i)		-	CE C		CTER	[STI	CS								
				H:22												
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٥.				LE TY												
25	(xi)	SEC	βήΕΝΟ	CE DE	ESCR	IPTIC	ON: S	SEQ 1	ED NO):13						
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		FIU	Ald	ALE		FLO	nig	AI &	FEA		Gln	Gly	FIG	ALE		THE
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30	тър	Leu	rea	20	261	Leu	тъ	Val	25	val	Leu	cys	Gly	30	Gly	Met
	4 l a	C1 **	Cn=		C1	Th -	Dro	C1=		Cwo	CID	۸1-	D=o		C15	T-5
	ALG	GIA		red	GIÀ	1111	PIQ	40	PEG	Cys	Gln	Ala	45	GIR	GIR	ILΨ
	Cl.,	C1	35	C1-	!! a 1	Lau	T		C15	50=	· ·	C1		4	۸	۸
	GIU		ALG.	GIII	vai.	rea.		GIII	GIII	261	Ser		птѕ	ASII	ASII	AIR
35	Δ1-	50	W = 1	50-	T.,	4-5	55	T ~··	A ==	Cln	A = 0	60 V=1	A - ~	W = 1	I	A = =
	Ala	rea	AST	3e [Tyt		о т у	ren	ASI	GIII		val	urg	val	Leu	_
	65					70					75					80

	Glu	Arg	Lys	Ala		Ile	Pro	Cys	Lys	_	Leu	Phe	Glu	Туг		Leu
		_		~ .	85			_,		90	_,				95	
	Leu	Туг	Lys		Gly	val	met	Pne		TIE	Glu	GIn	Ala		Lys	GIn
E	C	41 -	1	100	D	Y	17 - 1	c 1	105				•	110		_
5	cys	Ala	115	116	PTO	reu	val		Ser	1rp	Asp	Pro		Asp	ITE	Pro
	C1=	1 c n		Th -	Dha	c1	^ c n	120	Tur	50=	Ile	C 1 ···	125	D	C1-	C1
		130	261	1111	rne	GIU	135	GIN		261	TIE	140	СТУ	PIO	GIN	GIU
	C1n		Lou	W-1	Cln	C 3 11			Ácn	4=0	Arg		415	۸	C	T
10	145	116	Dea	Val	-	.150	тър	261	rsh	MIR	155	1111	ΑΤά	WIR	Sel	160
10		ጥከ e	Trn	Tlo			Tur	ፓ ኮ –	41 a	Tve	Asp	Cvc	Τ., -	Pro	Val	
	GIU	1111.	111	116	165	A 11	Tyr	1112	ALG.	170	пэр	cys	191	·	175	GIN
	Glu	Thr	Phe	Tle:		Asn	Tvr	Thr	Val		Met	Ser	Th r	A = 0		Pha
	V14		1110	180		21311	1)1	1111	185	,	1100	501	1111	190	THE	1110
15	Asp	Val	GIn		Glv	Tle	I.vs	αzA		Ser	Val	Phe	Thr		Pro	Set
			195	202	01)			200	120				205			
	Thr	Cys		Ala	Ala	Gln	Pro		Lys	Met	Ser	Asp		Cys	Ser	Leu
		210					215		,			220		,		
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20	INFO	RMAT	NOI	FOR	SEQ	ID N	JO:14	•								
	(i)	SEC	QUENC	E CF	IARAC	TERI	STIC	s								
	· (A	A) LE	ENGTE	1:37												
	(E) TY	PE:	Amir	no ac	id										
	(0) TC	POL	GY:	Line	ar										
25	(ii)	MOL	ECUL	E TY	PE:	Pept	ide									
	(xi)	SEC	(UENC	E DE	SCRI	PTIC)N: S	EQ I	D NC	:14						
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	Met	Pro	Gly	Arg	Ala	Pro	Leu	Arg	Thr	Val	Pro	Gly	Ala	Leu	Gly	Ala
	1				5					10.					15.	
30	Trp	Leu	Leu	G1y	G1y	Leu	Trp	Ala	Trp	Thr	Leu	Cys	Gly	Leu	Cys	Ser
				20					. 25					30		
	Leu	Gly	Ala	Val	Gly											
			35		•											

35 INFORMATION FOR SEQ ID NO:15

(i) SEQUENCE CHARACTERISTICS

(A) LENGTH: 24

	(B) TYPE: Amino acid
	(C) TOPOLOGY: Linear
	(ii) MOLECULE TYPE: Peptide
5	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:15
	Met Pro Gly Arg Ala Pro Leu Arg Thr Val Pro Gly Ala Leu Gly Ala
	1 5 10 15
	Trp Leu Leu Gly Gly Leu Trp Ala
10	20 .
	INFORMATION FOR SEQ ID NO:16
	(i) SEQUENCE CHARACTERISTICS
	(A) LENGTH: 34
15	(B) TYPE: Amino acid
	(C) TOPOLOGY: Linear
	(ii) MOLECULE TYPE: Peptide
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:16
20	Met Leu Thr Arg Ala Pro Arg Arg Leu Val Gln Gly Pro Arg Glu Thr
	1 5 10 15
	Trp Leu Leu Gly Gly Leu Trp Val Trp Ile Leu Cys Gly Leu Gly Met
	20 25 30
0.5	Ala Gly
25	· · · · · · · · · · · · · · · · · · ·
	INFORMATION FOR SEQ ID NO:17
	(i) SEQUENCE CHARACTERISTICS
	(A) LENGTH: 37
30	(B) TYPE: Amino acid
30	(C) TOPOLOGY: Linear
	(ii) MOLECULE TYPE: Peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:17
	(A1) DEQUEROE DESCRIPTION: SEQ ID NO:1/
	Met Pro Ala Arg Ala Pro Arg Arg Leu Val Gln Gly Pro Arg Gly Thr
35	1 5 10 15
	Trp Leu Leu Gly Ser Leu Trp Val Trp Val Leu Cys Gly Leu Gly Met
	The bod bod ory bot bed try tar try tar bed of ory nec

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5 INFORMATION FOR SEQ ID NO:18

(i) SEQUENCE CHARACTERISTICS

(B) TYPE: Nucleic acid(C) STRANDENESS: Double

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:18

Ala Gly Ser Leu Gly

(A) LENGTH:561

10 (D) TOPOLOGY: Linear

	GCCCCGCGCC CGTGCCAGGC GCCGCAGCAG TGGGAGGGGC GCCAGGTTAT GTACCAGCAA	60
15	AGTAGCGGGC GCAACAGCCG CGCCCTGCTC TCCTACGACG GGCTCAACCA GCGCGTGCGG	120
	GTGCTGGACG AGAGGAAGGC GCTGATCCCC TGCAAGAGAT TATTTGAATA TATTTTGCTG	180
	TATAAGGATG GAGTGATGTT TCAGATTGAC CAAGCCACCA AGCAGTGCTC AAAGATGACC	240
	CTGACACAGC CCTGGGATCC TCTTGACATT CCTCAAAACT CCACCTTTGA AGACCAGTAC	300
	TCCATCGGGG GGCCTCAGGA GCAGATCACC GTCCAGGAGT GGTCGGACAG AAAGTCAGCT	360
20	AGATCCTATG AAACCTGGAT TGGCATCTAT ACAGTCAAGG ATTGCTATCC TGTCCAGGAA	420
	ACCTTTACCA TAAACTACAG TGTGATATTG TCTACGCGGT TTTTTGACAT CCAGCTGGGT	480
	ATTAAAGACC CCTCGGTGTT TACCCCTCCA AGCACGTGCC AGATGGCCCA ACTGGAGAAG	540
	ATGAGCGAAG ACTGCTCCTG G	561
25	INFORMATION FOR SEQ ID NO:19	
	(i) SEQUENCE CHARACTERISTICS	
	(A) LENGTH: 570	
	(B) TYPE: Nucleic acid	
	(C) STRANDENESS: Double	
30	(D) TOPOLOGY: Linear	
	(ii) MOLECULE TYPE: cDNA	
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:19	
	TCCCCGGGAA CCCCGCAGCC ATGCCAGGGG CCCCAGCAGT GGGAGGGACG TCAGGTTCTG	60
35	TACCAGCAGA GCAGCGGGCA CAACAGCCGC GCCCTGGTGT CCTACGATGG TCTCAACCAG	120
	CGCGTGCGGG TGCTGGACGA AAGGAAGGCG CTGATCCCCT GCAAGAGATT ATTTGAATAC	180

	ATTTTACTCT ATAAGGATGG AGTGATGTTT CAGATTGAAC AAGCCACCAA ACTGTGTGC	A 240
	AAGATACCCT TGGCAGAACC CTGGGATCCT CTCGACATTC CCCAGAATTC TACCTTTGAA	A 300
	GATCAGTACT CTATCGGAGG GCCTCAGGAG CAGATCATGG TCCAGGAATG GTCTGACAG	G 360
	AGGACAGCCA GATCCTATGA AACCTGGATT GGCGTTTATA CAGCCAAGGA TTGCTACCC	G 420
5	GTCCAGGAGA CCTTCATTAG GAACTACACT GTGGTCCTGT CCACTCGGTT CTTTGATGTC	3 480
	CAGTTGGGCA TTAAAGACCC CTCTGTGTTC ACCCCACCAA GCACGTGCCA GACAGCACAC	5 540
	CCAGAGAAGA TGAAAGAGAA CTGCTCCCTG	570
	INFORMATION FOR SEQ ID NO:20	
10	(i) SEQUENCE CHARACTERISTICS	
	(A) LENGTH: 561	
	(B) TYPE: Nucleic acid	
	(C) STRANDENESS: Double	
	(D) TOPOLOGY: Linear	
15	(ii) MOLECULE TYPE: cDNA	
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:20	
i		
	ACCCCACAGC CATGCCAGGC ACCCCAGCAG TGGGAGGGAC GCCAGGTTCT GTACCAGCAG	60
	AGCAGCGGGC ACAACAACCG CGCCCTGGTG TCCTACGATG GTCTCAACCA GCGCGTGCGG	120
20	GTGCTGGACG AGAGGAAAGC GCTGATCCCC TGCAAGAGAT TATTTGAATA CATTTTACTC	180
	TATAAGGAGG GAGTGATGTT TCAGATTGAA CAAGCCACCA AACAGTGTGC AAAGATCCCC	240
	TTGGTGGAAT CCTGGGATCC TCTGGACATT CCCCAGAATT CTACCTTTGA AGATCAGTAC	300
	TCCATCGGAG GGCCTCAGGA GCAGATCCTG GTCCAGGAGT GGTCTGACAG AAGAACAGCA	360
	AGATCCTATG AAACTTGGAT CGGCGTTTAT ACAGCCAAGG ATTGTTATCC GGTCCAGGAC	420
25	ACCTTCATCA GGAACTACAC TGTGGTCATG TCCACGCGGT TCTTTGATGT GCAGCTAGGC	480
	ATTAAGGACC CCTCTGTGTT CACCCCACCA AGCACATGCC AGGCAGCGCA GCCAGAGAAG	540
	ATGAGTGACG GCTGCTCCTT G	561
	INFORMATION FOR SEQ ID NO:21	•

- 30 (i) SEQUENCE CHARACTERISTICS
 - (A) LENGTH:39
 - (B) TYPE: Nucleic acid
 - (C) STRANDENESS: Double
 - (D) TOPOLOGY: Linear
- 35 (ii) MOLECULE TYPE: cDNA
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:21

CCGTGCCAGG CGCCGCAGCA GTGGGAGGGG CGCCAGGTT

CTTGACATTC CTCAAAACTC CACCTTTGAA GACCAG 15 INFORMATION FOR SEQ ID NO:23 (i) SEQUENCE CHARACTERISTICS (A) LENGTH:75 (B) TYPE: Nucleic acid (C) STRANDENESS: Double 20 (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:23 TCCTATGAAA CCTGGATTGG CATCTATACA GTCAAGGATT GCTATCCTGT CCAGGAAACC			
(a) LENGTH:96 (b) TYPE: Nucleic acid (c) STRANDENESS: Double (d) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA 10 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:22 CAGATTGACC AAGCCACCAA GCAGTGCTCA AAGATGACCC TGACACAGCC CTGGGATCCT CTTGACATTC CTCAAAACTC CACCTTTGAA GACCAG 15 INFORMATION FOR SEQ ID NO:23 (i) SEQUENCE CHARACTERISTICS (A) LENGTH:75 (B) TYPE: Nucleic acid (C) STRANDENESS: Double 20 (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:23 TCCTATGAAA CCTGGATTGG CATCTATACA GTCAAGGATT GCTATCCTGT CCAGGAAACC INFORMATION FOR SEQ ID NO:24 (i) SEQUENCE CHARACTERISTICS (A) LENGTH:51 30 (B) TYPE: Nucleic acid (C) STRANDENESS: Double (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:24		INFORMATION FOR SEQ ID NO:22	
(B) TYPE: Nucleic acid (C) STRANDENESS: Double (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA 10 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:22 CAGATTGACC AAGCCACCAA GCAGTGCTCA AAGATGACCC TGACACAGCC CTGGGATCCT CTTGACATTC CTCAAAACTC CACCTTTGAA GACCAG 15 INFORMATION FOR SEQ ID NO:23 (i) SEQUENCE CHARACTERISTICS (A) LENGTH:75 (B) TYPE: Nucleic acid (C) STRANDENESS: Double 20 (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:23 TCCTATGAAA CCTGGATTGG CATCTATACA GTCAAGGATT GCTATCCTGT CCAGGAAACC 25 TTTACCATAA ACTAC INFORMATION FOR SEQ ID NO:24 (i) SEQUENCE CHARACTERISTICS (A) LENGTH:51 30 (B) TYPE: Nucleic acid (C) STRANDENESS: Double (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:24		(i) SEQUENCE CHARACTERISTICS	
(C) STRANDENESS: Double (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA 10 (xi) SEQUENCE DESCRIPTION: SEQ 1D NO:22 CAGATTGACC AAGCCACCAA GCAGTGCTCA AAGATGACCC TGACACAGCC CTGGGATCCT CTTGACATTC CTCAAAACTC CACCTTTGAA GACCAG 15 INFORMATION FOR SEQ ID NO:23 (i) SEQUENCE CHARACTERISTICS (A) LENGTH:75 (B) TYPE: Nucleic acid (C) STRANDENESS: Double 20 (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:23 TCCTATGAAA CCTGGATTGG CATCTATACA GTCAAGGATT GCTATCCTGT CCAGGAAACC 25 TTTACCATAA ACTAC INFORMATION FOR SEQ ID NO:24 (i) SEQUENCE CHARACTERISTICS (A) LENGTH:51 30 (B) TYPE: Nucleic acid (C) STRANDENESS: Double (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:24	5	(A) LENGTH: 96	÷
(D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA 10 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:22 CAGATTGACC AAGCCACCAA GCAGTGCTCA AAGATGACCC TGACACAGCC CTGGGATCCT CTTGACATTC CTCAAAACTC CACCTTTGAA GACCAG 15 INFORMATION FOR SEQ ID NO:23 (i) SEQUENCE CHARACTERISTICS (A) LENGTH:75 (B) TYPE: Nucleic acid (C) STRANDENESS: Double 20 (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:23 TCCTATGAAA CCTGGATTGG CATCTATACA GTCAAGGATT GCTATCCTGT CCAGGAAACC INFORMATION FOR SEQ ID NO:24 (i) SEQUENCE CHARACTERISTICS (A) LENGTH:51 30 (B) TYPE: Nucleic acid (C) STRANDENESS: Double (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:24		(B) TYPE: Nucleic acid	
(ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:22 CAGATTGACC AAGCCACCAA GCAGTGCTCA AAGATGACCC TGACACAGCC CTGGGATCCT CTTGACATTC CTCAAAACTC CACCTTTGAA GACCAG INFORMATION FOR SEQ ID NO:23 (i) SEQUENCE CHARACTERISTICS (A) LENGTH:75 (B) TYPE: Nucleic acid (C) STRANDENESS: Double (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:23 TCCTATGAAA CCTGGATTGG CATCTATACA GTCAAGGATT GCTATCCTGT CCAGGAAACC INFORMATION FOR SEQ ID NO:24 (i) SEQUENCE CHARACTERISTICS (A) LENGTH:51 (B) TYPE: Nucleic acid (C) STRANDENESS: Double (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:24		(C) STRANDENESS: Double	
CAGATTGACC AAGCCACCAA GCAGTGCTCA AAGATGACCC TGACACAGCC CTGGGATCCT CTTGACATTC CTCAAAACTC CACCTTTGAA GACCAG INFORMATION FOR SEQ ID NO:23 (i) SEQUENCE CHARACTERISTICS (A) LENGTH:75 (B) TYPE: Nucleic acid (C) STRANDENESS: Double (II) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:23 TCCTATGAAA CCTGGATTGG CATCTATACA GTCAAGGATT GCTATCCTGT CCAGGAAACC INFORMATION FOR SEQ ID NO:24 (i) SEQUENCE CHARACTERISTICS (A) LENGTH:51 (B) TYPE: Nucleic acid (C) STRANDENESS: Double (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE CHARACTERISTICS (A) LENGTH:51 (B) TYPE: Nucleic acid (C) STRANDENESS: Double (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:24		(D) TOPOLOGY: Linear	
CAGATTGACC AAGCCACCAA GCAGTGCTCA AAGATGACCC TGACACAGCC CTGGGATCCT CTTGACATTC CTCAAAACTC CACCTTTGAA GACCAG 15 INFORMATION FOR SEQ ID NO:23 (i) SEQUENCE CHARACTERISTICS (A) LENGTH:75 (B) TYPE: Nucleic acid (C) STRANDENESS: Double 20 (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:23 TCCTATGAAA CCTGGATTGG CATCTATACA GTCAAGGATT GCTATCCTGT CCAGGAAACC 25 TTTACCATAA ACTAC INFORMATION FOR SEQ ID NO:24 (i) SEQUENCE CHARACTERISTICS (A) LENGTH:51 30 (B) TYPE: Nucleic acid (C) STRANDENESS: Double (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:24		(ii) MOLECULE TYPE: cDNA	
CTTGACATTC CTCAAAACTC CACCTTTGAA GACCAG INFORMATION FOR SEQ ID NO:23 (i) SEQUENCE CHARACTERISTICS (A) LENGTH:75 (B) TYPE: Nucleic acid (C) STRANDENESS: Double 20 (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:23 TCCTATGAAA CCTGGATTGG CATCTATACA GTCAAGGATT GCTATCCTGT CCAGGAAACC INFORMATION FOR SEQ ID NO:24 (i) SEQUENCE CHARACTERISTICS (A) LENGTH:51 30 (B) TYPE: Nucleic acid (C) STRANDENESS: Double (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:24	10	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:22	
15 INFORMATION FOR SEQ ID NO:23 (i) SEQUENCE CHARACTERISTICS (A) LENGTH:75 (B) TYPE: Nucleic acid (C) STRANDENESS: Double 20 (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:23 TCCTATGAAA CCTGGATTGG CATCTATACA GTCAAGGATT GCTATCCTGT CCAGGAAACC INFORMATION FOR SEQ ID NO:24 (i) SEQUENCE CHARACTERISTICS (A) LENGTH:51 30 (B) TYPE: Nucleic acid (C) STRANDENESS: Double (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:24		CAGATTGACC AAGCCACCAA GCAGTGCTCA AAGATGACCC TGACACAGCC CTGGGATCCT	60
(i) SEQUENCE CHARACTERISTICS (A) LENGTH:75 (B) TYPE: Nucleic acid (C) STRANDENESS: Double 20 (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:23 TCCTATGAAA CCTGGATTGG CATCTATACA GTCAAGGATT GCTATCCTGT CCAGGAAACC INFORMATION FOR SEQ ID NO:24 (i) SEQUENCE CHARACTERISTICS (A) LENGTH:51 30 (B) TYPE: Nucleic acid (C) STRANDENESS: Double (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:24		CTTGACATTC CTCAAAACTC CACCTTTGAA GACCAG	96
(i) SEQUENCE CHARACTERISTICS (A) LENGTH:75 (B) TYPE: Nucleic acid (C) STRANDENESS: Double 20 (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:23 TCCTATGAAA CCTGGATTGG CATCTATACA GTCAAGGATT GCTATCCTGT CCAGGAAACC INFORMATION FOR SEQ ID NO:24 (i) SEQUENCE CHARACTERISTICS (A) LENGTH:51 30 (B) TYPE: Nucleic acid (C) STRANDENESS: Double (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:24			
(i) SEQUENCE CHARACTERISTICS (A) LENGTH:75 (B) TYPE: Nucleic acid (C) STRANDENESS: Double 20 (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:23 TCCTATGAAA CCTGGATTGG CATCTATACA GTCAAGGATT GCTATCCTGT CCAGGAAACC 25 TTTACCATAA ACTAC INFORMATION FOR SEQ ID NO:24 (i) SEQUENCE CHARACTERISTICS (A) LENGTH:51 30 (B) TYPE: Nucleic acid (C) STRANDENESS: Double (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:24	15	INFORMATION FOR SEQ ID NO:23	
(A) LENGTH:75 (B) TYPE: Nucleic acid (C) STRANDENESS: Double 20 (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:23 TCCTATGAAA CCTGGATTGG CATCTATACA GTCAAGGATT GCTATCCTGT CCAGGAAACC INFORMATION FOR SEQ ID NO:24 (i) SEQUENCE CHARACTERISTICS (A) LENGTH:51 30 (B) TYPE: Nucleic acid (C) STRANDENESS: Double (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:24			
(C) STRANDENESS: Double (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:23 TCCTATGAAA CCTGGATTGG CATCTATACA GTCAAGGATT GCTATCCTGT CCAGGAAACC INFORMATION FOR SEQ ID NO:24 (i) SEQUENCE CHARACTERISTICS (A) LENGTH:51 (B) TYPE: Nucleic acid (C) STRANDENESS: Double (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:24			
(ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:23 TCCTATGAAA CCTGGATTGG CATCTATACA GTCAAGGATT GCTATCCTGT CCAGGAAACC INFORMATION FOR SEQ ID NO:24 (i) SEQUENCE CHARACTERISTICS (A) LENGTH:51 (B) TYPE: Nucleic acid (C) STRANDENESS: Double (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:24		(B) TYPE: Nucleic acid	
(ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:23 TCCTATGAAA CCTGGATTGG CATCTATACA GTCAAGGATT GCTATCCTGT CCAGGAAACC 25 TTTACCATAA ACTAC INFORMATION FOR SEQ ID NO:24 (i) SEQUENCE CHARACTERISTICS (A) LENGTH:51 30 (B) TYPE: Nucleic acid (C) STRANDENESS: Double (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:24		(C) STRANDENESS: Double	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:23 TCCTATGAAA CCTGGATTGG CATCTATACA GTCAAGGATT GCTATCCTGT CCAGGAAACC 25 TTTACCATAA ACTAC INFORMATION FOR SEQ ID NO:24 (i) SEQUENCE CHARACTERISTICS (A) LENGTH:51 30 (B) TYPE: Nucleic acid (C) STRANDENESS: Double (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:24	20	(D) TOPOLOGY: Linear	
TCCTATGAAA CCTGGATTGG CATCTATACA GTCAAGGATT GCTATCCTGT CCAGGAAACC 25 TTTACCATAA ACTAC INFORMATION FOR SEQ ID NO:24 (i) SEQUENCE CHARACTERISTICS (A) LENGTH:51 30 (B) TYPE: Nucleic acid (C) STRANDENESS: Double (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:24		(ii) MOLECULE TYPE: cDNA	
INFORMATION FOR SEQ ID NO:24 (i) SEQUENCE CHARACTERISTICS (A) LENGTH:51 30 (B) TYPE: Nucleic acid (C) STRANDENESS: Double (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:24		(xi) SEQUENCE DESCRIPTION: SEQ ID NO:23	
INFORMATION FOR SEQ ID NO:24 (i) SEQUENCE CHARACTERISTICS (A) LENGTH:51 30 (B) TYPE: Nucleic acid (C) STRANDENESS: Double (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:24			
INFORMATION FOR SEQ ID NO:24 (i) SEQUENCE CHARACTERISTICS (A) LENGTH:51 30 (B) TYPE: Nucleic acid (C) STRANDENESS: Double (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:24		TCCTATGAAA CCTGGATTGG CATCTATACA GTCAAGGATT GCTATCCTGT CCAGGAAACC	60
(i) SEQUENCE CHARACTERISTICS (A) LENGTH:51 30 (B) TYPE: Nucleic acid (C) STRANDENESS: Double (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:24	25	TTTACCATAA ACTAC	75
(i) SEQUENCE CHARACTERISTICS (A) LENGTH:51 30 (B) TYPE: Nucleic acid (C) STRANDENESS: Double (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:24			
(A) LENGTH:51 30 (B) TYPE: Nucleic acid (C) STRANDENESS: Double (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:24		INFORMATION FOR SEQ ID NO:24	
(C) STRANDENESS: Double (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:24		(i) SEQUENCE CHARACTERISTICS	•
(C) STRANDENESS: Double (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:24		(A) LENGTH:51	
(D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:24	30	(B) TYPE: Nucleic acid	
(ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:24		(C) STRANDENESS: Double	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:24		(D) TOPOLOGY: Linear	
		(ii) MOLECULE TYPE: cDNA	
35		(xi) SEQUENCE DESCRIPTION: SEQ ID NO:24	
	35		

CAGCTGGGTA TTAAAGACCC CTCGGTGTTT ACCCCTCCAA GCACGTGCCA G

	INFORMATION FOR SEQ ID NO:25	
	(i) SEQUENCE CHARACTERISTICS	
	(A) LENGTH:117	
	(B) TYPE: Nucleic acid	
5	(C) STRANDENESS: Double	-
	(D) TOPOLOGY: Linear	
	(ii) MOLECULE TYPE: cDNA	
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:25	
10	TCCTACGACG GGCTCAACCA GCGCGTGCGG GTGCTGGACG AGAGGAAGGC GCTGATCCCC	60
	TGCAAGAGAT TATTTGAATA TATTTTGCTG TATAAGGATG GAGTGATGTT TCAGATT	117
	INFORMATION FOR SEQ ID NO:26	
15	(i) SEQUENCE CHARACTERISTICS	
	(A) LENGTH: 78	
	(B) TYPE: Nucleic acid	
	(C) STRANDENESS: Double	
	(D) TOPOLOGY: Linear	
20	(ii) MOLECULE TYPE: cDNA	
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:26	
	CCCTGGGATC CTCTTGACAT TCCTCAAAAC TCCACCTTTG AAGACCAGTA CTCCATCGGG	60
	GGGCCTCAGG AGCAGATC	78
25		
	INFORMATION FOR SEQ ID NO:27	
	(i) SEQUENCE CHARACTERISTICS	
	(A) LENGTH:600	
2.0	(B) TYPE: Nucleic acid	
30	(C) STRANDENESS: Double	
	(D) TOPOLOGY: Linear	
	(ii) MOLECULE TYPE: cDNA	
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:27	
3.5	MOCAGO DE CONTROL CARROLLO CONTROLO CON	
35	TGGACCCTGT GCGGCCTGTG CAGCCTGGGG GCGGTGGGAG CCCCGCGCCC GTGCCAGGCG	60

CCGCAGCAGT GGGAGGGGCG CCAGGTTATG TACCAGCAAA GTAGCGGGCG CAACAGCCGC 120

	GCCCTGCTCT	CCTACGACGG	GCTCAACCAG	CGCGTGCGGG	TGCTGGACGA	GAGGAAGGCG	180
	CTGATCCCCT	GCAAGAGATT	ATTTGAATAT	ATTTTGCTGT	ATAAGGATGG	AGTGATGTTT	240
	CAGATTGACC	AAGCCACCAA	GCAGTGCTCA	AAGATGACCC	TGACACAGCC	CTGGGATCCT	300
	CTTGACATTC	CTCAAAACTC	CACCTTTGAA	GACCAGTACT	CCATCGGGGG	GCCTCAGGAG	360
5	CAGATCACCG	TCCAGGAGTG	GTCGGACAGA	AAGTCAGCTA	GATCCTATGA	AACCTGGATT	420
	GGCATCTATA	CAGTCAAGGA	TTGCTATCCT	GTCCAGGAAA	CCTTTACCAT	AAACTACAGT	480
	GTGATATTGT	CTACGCGGTT	TTTTGACATC	CAGCTGGGTA	TTAAAGACCC	CTCGGTGTTT	540
	ACCCCTCCAA	GCACGTGCCA	GATGGCCCAA	CTGGAGAAGA	TGAGCGAAGA	CTGCTCCTGG	600
	•						
)	INFORMATION	FOR SEQ. II	NO:28				

- 10
 - (i) SEQUENCE CHARACTERISTICS
 - (A) LENGTH: 672
 - (B) TYPE: Nucleic acid
 - (C) STRANDENESS: Double
- 15 (D) TOPOLOGY: Linear
 - (ii) MOLECULE TYPE: cDNA
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:28

	ATGCCAGGAC	GCGCTCCCCT	CCGCACCGTC	ccegececc	TGGGTGCCTG	GCTGCTGGGC	60
20	GGCCTCTGGG	CCTGGACCCT	GTGCGGCCTG	TGCAGCCTGG	GGGCGGTGGG	AGCCCCGCGC	120
	CCGTGCCAGG	CGCCGCAGCA	GTGGGAGGGG	CGCCAGGTTA	TGTACCAGCA	AAGTAGCGGG	180
	CGCAACAGCC	GCGCCCTGCT	CTCCTACGAC	GGGCTCAACC	AGCGCGTGCG	GGTGCTGGAC	240
	GAGAGGAAGG	CGCTGATCCC	CTGCAAGAGA	TTATTTGAAT	ATATTTTGCT	GTATAAGGAT	300
	GGAGTGATGT	TTCAGATTGA	CCAAGCCACC	AAGCAGTGCT	CAAAGATGAC	CCTGACACAG	360
25	CCCTGGGATC	CTCTTGACAT	TCCTCAAAAC	TCCACCTTTG	AAGACCAGTA	CTCCATCGGG	420
	GGGCCTCAGG	AGCAGATCAC	CGTCCAGGAG	TGGTCGGACA	GAAAGTCAGC	TAGATCCTAT	480
	GAAACCTGGA	TTGGCATCTA	TACAGTCAAG	GATTGCTATC	CTGTCCAGGA	AACCTTTACC	540
	ATAAACTACA	GTGTGATATT	GTCTACGCGG	TTTTTTGACA	TCCAGCTGGG	TATTAAAGAC	600
	CCCTCGGTGT	TTACCCCTCC	AAGCACGTGC	CAGATGGCCC	AACTGGAGAA	GATGAGCGAA	660
30	GACTGCTCCT	GG	**	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			672

INFORMATION FOR SEQ ID NO:29

- (i) SEQUENCE CHARACTERISTICS
 - (A) LENGTH: 672
- 35 (B) TYPE: Nucleic acid
 - (C) STRANDENESS: Double

(D) TOPOLOGY: Linear

(ii) MOLECULE TYPE: cDNA (xi) SEQUENCE DESCRIPTION: SEQ ID NO:29 5 ATGCTCACAC GCGCTCCCCG CCGCCTGGTC CAGGGGCCCC GGGAGACCTG GCTGCTTGGC 60 GGCCTCTGGG TCTGGATATT GTGCGGCCTG GGGATGGCGG GCTCCCCGGG AACCCCGCAG 120 CCATGCCAGG CGCCCCAGCA GTGGGAGGGA CGTCAGGTTC TGTACCAGCA GAGCAGCGGG 180 CACAACAGCC GCGCCCTGGT GTCCTACGAT GGTCTCAACC AGCGCGTGCG GGTGCTGGAC 240 GAAAGGAAGG CGCTGATCCC CTGCAAGAGA TTATTTGAAT ACATTTTACT CTATAAGGAT 300 10 GGAGTGATGT TTCAGATTGA ACAAGCCACC AAACTGTGTG CAAAGATACC CTTGGCAGAA 360 CCCTGGGATC CTCTCGACAT TCCCCAGAAT TCTACCTTTG AAGATCAGTA CTCTATCGGA 420 GGGCCTCAGG AGCAGATCAT GGTCCAGGAA TGGTCTGACA GGAGGACAGC CAGATCCTAT 480 GAAACCTGGA TTGGCGTTTA TACAGCCAAG GATTGCTACC CGGTCCAGGA GACCTTCATT 540 AGGAACTACA CTGTGGTCCT GTCCACTCGG TTCTTTGATG TGCAGTTGGG CATTAAAGAC 600 15 CCCTCTGTGT TCACCCCACC AAGCACGTGC CAGACAGCAC AGCCAGAGAA GATGAAAGAG 660 AACTGCTCCC TG 672 INFORMATION FOR SEQ ID NO:30 (i) SEQUENCE CHARACTERISTICS 20 (A) LENGTH: 672 (B) TYPE: Nucleic acid (C) STRANDENESS: Double (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: cDNA 25 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:30 ATGCCCGCGC GCGCTCCCCG CCGCCTGGTC CAGGGGCCTC GGGGGACCTG GCTGCTGGGA 60 AGCCTCTGGG TCTGGGTGCT GTGCGGCCTG GGGATGGCGG GCTCCCTGGG AACCCCACAG 120 CCATGCCAGG CACCCCAGCA GTGGGAGGGA CGCCAGGTTC TGTACCAGCA GAGCAGCGGG 180 30 CACAACAACC GCGCCCTGGT GTCCTACGAT GGTCTCAACC AGCGCGTGCG GGTGCTGGAC 240 GAGAGGAAAG CGCTGATCCC CTGCAAGAGA TTATTTGAAT ACATTTTACT CTATAAGGAG 300 GGAGTGATGT TTCAGATTGA ACAAGCCACC AAACAGTGTG CAAAGATCCC CTTGGTGGAA 360 TCCTGGGATC CTCTGGACAT TCCCCAGAAT TCTACCTTTG AAGATCAGTA CTCCATCGGA 420 GGGCCTCAGG AGCAGATCCT GGTCCAGGAG TGGTCTGACA GAAGAACAGC AAGATCCTAT 480

35 GAAACTTGGA TCGGCGTTTA TACAGCCAAG GATTGTTATC CGGTCCAGGA GACCTTCATC

AGGAACTACA CTGTGGTCAT GTCCACGCGG TTCTTTGATG TGCAGCTAGG CATTAAGGAC

540

	CCCTCTGTGT TCACCCCACC AAGCACATGC CAGGCAGCGC	AGCCAGAGAA	GAIGAGIGAC	000
	GGCTGCTCCT TG	Q		672
	INFORMATION FOR SEQ ID NO:31			•
5	(i) SEQUENCE CHARACTERISTICS			
	(A) LENGTH:111			
	(B) TYPE: Nucleic acid			
-	(C) STRANDENESS: Double			
	(D) TOPOLOGY: Linear	• • • •		
10	(ii) MOLECULE TYPE: cDNA		_	
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:31			
	ATGCCAGGAC GCGCTCCCCT CCGCACCGTC CCGGGCGCCC	TGGGTGCCTG	GCTGCTGGGC	60
	GGCCTCTGGG CCTGGACCCT GTGCGGCCTG TGCAGCCTGG	GGGCGGTGGG	A	111
15				
	INFORMATION FOR SEQ ID NO:32	•		
	(i) SEQUENCE CHARACTERISTICS	:		
	(A) LENGTH:72			
	(B) TYPE: Nucleic acid			
20	(C) STRANDENESS: Double			
	(D) TOPOLOGY: Linear			
	(ii) MOLECULE TYPE: cDNA			
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:31			
25	ATGCCAGGAC GCGCTCCCCT CCGCACCGTC CCGGGCGCCC	TGGGTGCCTG	GCTGCTGGGC	60
	GGCCTCTGGG CC			72
	INFORMATION FOR SEQ ID NO:33			
	(i) SEQUENCE CHARACTERISTICS			
30	(A) LENGTH:102			
	(B) TYPE: Nucleic acid			
	(C) STRANDENESS: Double			
	(D) TOPOLOGY: Linear			
	(ii) MOLECULE TYPE: cDNA			
35	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:33			

	ATGCTCACAC GCGCTCCCCG CCGCCTGGTC CAGGGGCCCC GGGAGACCTG GCTGCTTGGC	60
	GGCCTCTGGG TCTGGATATT GTGCGGCCTG GGGATGGCGG GC	102
	INFORMATION FOR SEQ ID NO:34	
5	(i) SEQUENCE CHARACTERISTICS	
	(A) LENGTH:111	
,	(B) TYPE: Nucleic acid	
	(C) STRANDENESS: Double	
	(D) TOPOLOGY: Linear	
10	(ii) MOLECULE TYPE: cDNA	
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:34	
	ATGCCCGCGC GCGCTCCCCG CCGCCTGGTC CAGGGGCCCTC GGGGGACCTG GCTGCTGGGA	60
	AGCCTCTGGG TCTGGGTGCT GTGCGGCCTG GGGATGGCGG GCTCCCTGGG A	111
15		
	INFORMATION FOR SEQ ID NO:35	
	(i) SEQUENCE CHARACTERISTICS	
	(A) LENGTH:21	
	(B) TYPE: Nucleic acid	
20	(C) STRANDENESS: Single	
	(D) TOPOLOGY: Linear	
	(ii) MOLECULE TYPE: Synthetic DNA	
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:35	
25	AGGTGGAGTT TTGAGGAATG T 21	